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Johann Friedrich Herbart

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HERBART, JOHANN FRIEDRICH (1776–1841), German philosopher, psychologist, and educator. Herbart was among the first, early in the nineteenth century, to propose a mathematical psychology. Coming after Immanuel Kant's claim (in his *Metaphysische Angangsgründe der Naturwissenschaft* [Metaphysical Foundation of Natural Science], Riga, 1786) that there could be no such discipline, this was a bold proposal, which kept alive the eighteenth-century quest for a science of psychology. Even though Herbart himself denied the possibility of an experimental psychology, and despite the fact that his own psychology (as a branch of applied metaphysics) was largely conjectural, his example inspired subsequent scholars to work toward a quantitative, experimental discipline of psychology.

Herbart was born in Oldenberg and died in Göttingen. Trained in philosophy and law at the University of Jena, he was influenced by Enlightenment thought (especially that of Gottfried Wilhelm Leibniz, Kant, and Johann Gottlieb Fichte), and he was a friend of Johann Heinrich Pestalozzi, one of the founders of modern pedagogical theory and practice. After lecturing in philosophy and pedagogy at the University of Göttingen, he took over Kant's chair in philosophy at the University of Königsberg in 1808 and opened a pedagogical institute and an experimental school. He turned to psychology as the foundation for his approach to teaching and learning, thus establishing the still-extant link between psychology and pedagogy. In 1833, he returned to Göttingen as professor of philosophy. Decades after his death, "Herbartianism" enjoyed a strong vogue in educational circles.

Herbart believed that the ultimate constituents of reality, which he called "reals," are in a perpetual process of combining and separating. Because he considered this process to be the basis of perception, cognition, and learning, he felt that a "Newtonian" analysis of psychological "mechanics" and "dynamics" was both possible and desirable. When "reals" combine into psychological phenomena, or "presentations," according to Herbart, these mental entities not only exist in time (as Kant had maintained for psychological phenomena) but also have varying degrees of intensity, strength, or force (which Kant had overlooked). Herbart used the relative intensities of different presentations (perceptions and ideas) as the means of mathematizing psychology. He reasoned that if psychological phenomena could be distinguished as more or less intense, numerical values could be assigned to their different degrees of intensity. Further, assuming that every increase in the intensity of one presentation results in a proportionate decrease in the intensity of another (as his metaphysics had proven, at least to his satisfaction), Herbart was able to explain mental processes with an equilibrium model that he articulated both in words and in algebraic equations. This model became remarkably complex as he tried to account for the various modes of combination, separation, and interaction that typify psychological phenomena, according to his experience and metaphysics. On the basis of this model, Herbart derived a long series of psychological laws.

Compelling though the logic of his system may have been for those inclined to accept an atomistic, associative model of mental entities and processes, it had the drawback of being based on postulation rather than measurement—on the arbitrary assignment of numerical values to the relative intensities of different hypothetical presentations rather than on actual measurements of real presentations. Still, it provided substantial support for his pedagogical theory and practice, suggesting (for instance) that new ideas

should be presented to students in a way that connects them to the students' preceding knowledge and experience.

Herbart's psychology was a reference point for many subsequent psychologists, including those who reacted against it. After Friedrich Eduard Beneke insisted that a truly scientific psychology had to be based upon empirical observations and experiments before it could be properly quantitative, E. H. Weber, Gustav Theodor Fechner, and Wilhelm Wundt brought the promise of Herbart's incipiently scientific psychology to fuller, if different realization by actually measuring experimentally controlled perceptual responses. Even though Herbart's broader psychological system was rejected by later investigators, many of his theoretical concepts, such as the notions of mental dynamics, psychological inhibition, thresholds of consciousness, apperceptive mass, and the continuing existence and operation of unconscious presentations, became part of the psychological tradition, finding expression in the work of Sigmund Freud and others.

Among Herbart's many publications on psychology, pedagogy, metaphysics, and other topics, his *Lehrbuch zur Psychologie* [Textbook of Psychology] (Königsberg, 1816) and his *Psychologie als Wissenschaft, neu gegründet auf Erfahrung, Metaphysik und Mathematik* [Psychology as Science, Newly Grounded on Experience, Metaphysics, and Mathematics] (2 vols., Königsberg, 1824–1825) are the best known. Besides stimulating later psychologists and helping to establish pedagogy as an independent discipline, Herbart was an early exponent of educational therapy and has been considered a significant predecessor of child psychiatry.

Bibliography

Asmus, W. (1968–1970). *J. F. Herbart: Eine pädagogische Biographie* (Vols. 1–2). Heidelberg: Quelle und Meyer. Covers Herbart's life and work in breadth and depth.

Dunkel, H. B. (1970). *Herbart and Herbartianism.* Chicago: University of Chicago Press. Treats Herbart's thought and its historical legacy.

Herbart, J. F. (1897). *A textbook in psychology* (M. K. Smith, Trans.). New York: Appleton. An English translation of Herbart's 1816 textbook, demonstrating the continuing end-of-century interest in his work.

Leary, D. E. (1980). The historical foundation of Herbart's mathematization of psychology. *Journal of the History of the Behavioral Sciences, 16,* 150–163. Places Herbart's psychology within its historical context and analyzes its fundamental principles.

Stout, G. F. (1888). The Herbartian psychology. *Mind, 13,* 321–328. Gives a late-century analysis of Herbartian psychology in light of subsequent developments.

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